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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/058,409	01/30/2002	Nobutsune Kobayashi	00862.022500	4731

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EXAMINER

MCCLOUD, RENATA D

ART UNIT PAPER NUMBER

2837

DATE MAILED: 01/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/058,409

Applicant(s)

KOBAYASHI ET AL.

Examiner

Renata McCloud

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,5-7,9,10 and 25-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,5-7,9,10,25-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Specification***

1. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: "second determination step", "third velocity command value generation step", and "third velocity command value generation means".

### ***Claim Objections***

2. Claim 31 objected to because of the following informalities: The punctuation after the period needs to be removed. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 28 and 30 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to

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one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 28: " a second step for determining whether the elapsed time has been exceeded a predetermined time, when said mechanism does not arrive at the predetermined position" is not described in the specification.

Claim 30: third velocity command generation means for outputting a constant velocity command value to said monitor, when the elapsed time has been exceeded a predetermined time and said mechanism does not arrive at the predetermined position", and "outputting a constant velocity command value to said monitor" are not described in the specification.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 30 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 30 recites the limitation "said monitor". There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1, 5-7, 9, 26, 29, and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Kono et al (US 5,030,900).

**Claims 1, 5, and 6:** generating a first velocity (Fig. 4c:VCMOR1) in accordance to a function based on a time after deceleration (Fig. 4e; Fig. 3:region 2; Col. 3:31-40), determining if a mechanism arrives at a predetermined position within a deceleration region (Fig. 4a: LS and MS signals); generating a second velocity (Fig. 4c: VCMOR2) having an initial value (Fig. 4c: VCMOR2 at changeover to MS signal) less than a minimum value of the first velocity (Fig. 4c: VCMOR1), upon determination of the mechanism arriving at a predetermined position. (Col. 2: 9-27).

**Claim 7:** generating a first velocity (Fig. 4c:VCMOR1); generating a second velocity (Fig. 4c: VCMOR2) having an initial value (Fig. 4c: VCMOR2 at changeover to MS signal) less than a minimum value of the first velocity (Fig. 4c: VCMOR1), upon determination of the mechanism arriving at a predetermined position. (Col. 2: 9-27); and change means (Fig. 1: 10 transmits MS changeover signal) for changing the velocity command value generation means at predetermined timing within a deceleration region (Fig. 4c: MS changeover signal).

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**Claim 9:** the first function (Fig. 3: VCMOR1) represents a curve and the second function (Fig. 3: VCMOR2) outputs a constant value.

**Claim 26:** the change means performs the changing a plurality of times to decrease the velocity command (Fig. 4c: MS signal).

**Claims 29 and 31:** the minimum value of the command generated in the first step and the initial value of the second function are discontinuous (Fig. 3: VCMOR1 and VCMOR2 at t1).

### ***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 10, 25, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kono et al as applied to claims 9, 1, and 7 above, and further in view of Kazuya (JP 2000-188894).

**Claim 10:** Kono et al teach the limitations of claim 9. Referring to claim 10, they do not teach the first function is a cubic function. Kazuya teaches a first velocity profile (PG. 1:0007) that is a cubic function (Fig. 1; Pg. 6: 0051). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the

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apparatus taught by Kono et al to use a cubic function as taught by Kazuya. The advantage of this would be the ability to gradually accelerate/decelerate the motor to prevent damage the motor.

**Claims 25 and 27:** Kono et al teach the limitations of claims 1 and 7. Referring to claims 25 and 27, they do not teach the device is a printing mechanism. Kazuya teaches a printing mechanism (Fig. 2). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method taught by Kono et al to be used in a printing apparatus as taught by Kazuya. The advantage of this would be a printer having smooth acceleration/deceleration so as to prevent damage to the motor.

### ***Response to Arguments***

11. Applicant's arguments filed 14 October 2004 have been fully considered but they are not persuasive. In response to Applicant's argument that Kono et al do not teach a velocity command based on an elapsed time after deceleration, the limitation "based on an elapsed time after a start of deceleration" is broad. Kono et al teach deceleration, which is time based (Col. 3: 20-40; Col. 4:5-5:6), and a velocity command based on a time after deceleration in (see Fig. 4e, Fig. 3 region 2).

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***Conclusion***

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Renata McCloud whose telephone number is (571) 272-2069. The examiner can normally be reached on Mon.- Fri. from 8 am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin can be reached on (571) 272-2800 ext. 4. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

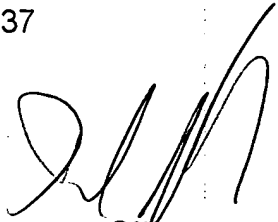


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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RDM

Renata McCloud  
Examiner  
Art Unit 2837



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